

REMARKS

Claims 1 and 8 have been amended and new claims 14-20 added. Support may be found in the claims, as originally filed, and on page 4, lines 6-7, and on page 5, lines 17-

19

No new matter has been added. Entry requested.

Applicants have discovered that ethylene-vinyl acetate based hot melt adhesive formulations that can be applied at low temperatures (i.e., 200°F to 300°F). The adhesive compositions of the invention exhibit good heat stress values and cold tolerance and are produced using ethylene-vinyl acetate copolymers containing 30-50 wt % of vinyl acetate and 30-60 wt % of a terpene, modified terpene and/or terpene phenolic tackifier.

The foregoing amendment is believed to overcome the objection to claim 8.

Claims 1, 4-11 and 13 stand rejected as being anticipated by, or in the alternative, as being obvious over Kosaka *et al.* (U.S. Patent No. 63,944,695) or Liedermooy *et al.* (U.S. Patent No. 5,670,566). Applicants disagree.

Kosaka discloses a heat printing sheet comprising a substrate having coated thereon a composition comprising 10-60 % by weight of a tackifier, 5-50% by weight of a wax, 10-60% by weight of an ethylene vinyl acetate copolymer that contains 5-50% by weight vinyl acetate that has a melt index of 4-1000g/min, 5-40% filler and a pigment. The components are selected to be useful for the contemplated purpose and must contain a filler and a pigment. While Kosaka discloses and claims that the vinyl acetate component of the ethylene vinyl acetate copolymer have a melt index of 4-1000 g/10min, preferred for use is vinyl acetate having a melt index of 15-400g/min (col. 1, lines 61-63). The vinyl acetate in the exemplified embodiment (see example 1) has a melt index of

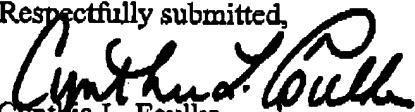
150g/min. There is no disclosure or suggestion that the components of Kosaka can be formulated for use as an adhesive for bonding one substrate to another. There is no disclosure or suggestion that the compositions of Kosaka can be used to form cartons cases and trays as claimed by applicants (claims 9, 16, 20). Applicants' claimed hot melt adhesive composition is not anticipated by Kosaka. Kosaka provides no suggestion to use the components claimed by applicants. Applicants submit that the examiner has failed to establish a *prima facie* case of obviousness. Withdrawal is requested.

Liedermooy disclose a hot melt adhesive composition, specifically, an ethylene n-butyl acrylate based hot melt adhesive. The adhesive of Liedermooy, in addition to ethylene n-butyl acrylate copolymers may optionally contain up to 20% by weight of another polymeric additive, such as ethylene vinyl acetate containing 10-40% by weight vinyl acetate. There is no disclosure or suggestion that a low application temperature hot melt adhesive may be prepared using an ethylene vinyl acetate copolymer as claimed by applicants (5-60% EVA with 30-50% VA), let alone formulating a hot melt adhesive comprising 35 to 60 % by weight of an ethylene vinyl acetate copolymer and required for used in claim 8 (35 wt % EVA), claims 11 and 19 (35-45 wt % EVA), claim 14 (35-60 wt % EVA). Applicants submit that the claimed invention is not anticipated by Liedermooy. Liedermooy fails to disclose an ethylene-vinyl acetate based low application temperature hot melt adhesive containing a terpene phenolic tackifier, let alone use of the tackifier is amounts of 30 to 60 wt %. Liedermooy provides no disclosure that would motivated the skilled artisan to use amounts of ethylene-vinyl acetate in excess of 20% by weight. Applicants' claimed hot melt adhesive composition is not anticipated by Liedermooy. Liedermooy provides no suggestion to use the

components claimed by applications. Applicants submit that the examiner has failed to establish a *prima facie* case of obviousness. Withdrawal is requested.

Favorable and early action solicited.

Respectfully submitted,


Cynthia L. Foulke
Reg. No. 32,364

March 3, 2004

National Starch and Chemical Company
10 Finderne Avenue
Bridgewater, New Jersey 08807-0500
(908) 685-7483

Marked-up copy of claims showing changes made

Claim 1. A hot melt adhesive composition comprising, by weight of the hot melt adhesive composition,

a) about 5 weight percent to about 60 weight percent of an [ethylene vinyl] ethylene-vinyl acetate copolymer having a vinyl acetate content of about 30 weight percent to 50 weight percent and a melt index of about 700 to 4,000 dg/min;

b) about [5] 30 weight percent to about 60 weight percent of a terpene phenolic tackifier; and

c) about 15 weight percent to about 55 weight percent of a wax with a melting point of about 125°F to 180°F;

wherein the hot melt composition can be applied at a temperature of 200°F to 300°F.

Claim 8. A hot melt adhesive composition comprising, by weight of the hot melt adhesive composition,

a) about 35 weight percent of an [ethylene vinyl] ethylene-vinyl acetate copolymer with about 40 weight percent vinyl acetate and having a melt index of at about 1,000;

b) about 30 weight percent of a terpene phenolic tackifier [selected from the group consisting of terpene, terpene phenolic, modified terpenes, and combinations thereof];

c) about 5 weight percent of at least one additional tackifier selected from the group consisting of pentaerythritol, hydrogenated glycerol, and combinations thereof;

d) about 30 weight percent of a wax with a melting point of about 150°F;

wherein the hot melt composition can be applied at a temperature of 200°F to 300°F.

Claim 11. An adhesive according to Claim 1 which comprises about 35 weight percent to about 45 weight percent of an [ethylene vinyl] ethylene-vinyl acetate copolymer.